

## COW/CALF CORNER

### **The Newsletter From the Oklahoma Cooperative Extension Service**

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#### **Don't Buy Calf Scours!**

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South Dakota State University researchers examined the cause of a scours epidemic in one spring calving herd back in 2000. Results of the retrospective, record-based investigation suggested that introduction of foster calves was associated with the calf scours outbreak. Prior to April 5, no scours cases had been observed, despite 39 calves being born. The calf scours epidemic was clearly in swing by the 45th day of the spring 2000 calving season and first cases of the epidemic were observed between the 31st and 40th days (April 5, 2000 through April 14, 2000). Following April 5, records indicated there was the introduction of at least 2 foster calves. The outbreak commenced shortly after the introduction of foster calves. Foster calves can introduce pathogens to a herd, and can shed calf scours pathogens in their feces even when feces appear normal. Because of this risk, the introduction of foster calves is not usually recommended. If introduced into a herd, foster calves (with their foster dam) should be isolated from the remainder of the herd until all calves are at least 4 weeks old. At that time, it is generally

regarded as safe to commingle foster calf pairs with the remainder of the herd. Source: W. B. Epperson. 2003 South Dakota Beef Report.

### Timing of Respiratory Vaccines for Calves

John Kirkpatrick, DVM, Oklahoma State University Professor Emeritus, and Glenn Selk, Oklahoma State University Extension Cattle Reproduction Specialist

It soon will be time to "work" the spring-born calves. New research is available that suggests that the young calves may be vaccinated with products used for protection against the respiratory diseases (IBR and BVDV). By vaccinating the calves now, the first immunization takes place when there is very little stress on the calf, giving the calf an excellent opportunity to begin to develop cell-mediated immunity. The calf then is re-vaccinated at weaning time.

The July, 2008 issue of the Journal of American Veterinary Medical Association contains the results of the study comparing a "calf-working" vaccination with the traditional "pre-weaning" vaccination. Oklahoma State University veterinary scientists cooperating with the Noble Foundation of Ardmore, Oklahoma studied the timing of modified-live virus vaccinations in beef calves. For years, the recommendation for the timing of modified-live vaccines called for the vaccine to be given after maternal passive immunity antibodies had disappeared from the blood of the calf. It was thought that maternal antibodies (received in the colostrum) would interfere with the effectiveness of the vaccine. Therefore most viral vaccines were not given until the calves were 4 to 5 months or older.

However, the OSU/Noble Foundation research has shown otherwise. They vaccinated calves at 67 days of age and re-vaccinated them at weaning (190 days) and compared that with vaccinating at 167 days of age and boosted at (190 days) weaning. There was no difference in the percentage of calves protected by the vaccine due to the timing of the first vaccination. The result with both vaccination schedules was improved serum antibody titers compared with unvaccinated control calves. Not surprising was the fact that the vaccinated calves had lower treatment costs and less mortality in the feedlot than the non-vaccinated control calves. Before the study was initiated, all cows and replacement heifers were vaccinated after calving and 30 days before breeding with a modified live vaccination for IBR, BVD types I and II, PI-3, and BRSV. This research suggests that the first vaccination with a modified live virus vaccine can be given at normal "calf-working" time, if boosted again at weaning. The calves would not need to be gathered at a separate time (approximately 3 - 4 weeks prior to weaning). The cows that nurse these newly vaccinated calves should have already been protected with a modified live

vaccine against these same respiratory diseases. Source: Kirkpatrick, et al. 2008. JAVMA Vol. 233, No. 1, Pages 136-142.

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